

PATENT SPECIFICATION

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(54) IMPROVEMENTS IN OR RELATING TO A CONTAINER

(71) We, DART INDUSTRIES INC, a Company organised and existing under the Laws of the State of Delaware, United States of America of, 8480 Beverly Boulevard, Los Angeles, California 90048, United States of America, do hereby declare the invention for which we pray that a patent may be granted to us and the method by which it is to be performed to be particularly described in and by the following statement:—

This invention relates to a container and more particularly to a storage container for foodstuffs and the like.

In using a container for the storage of foodstuffs, and related items, it is often desirable to store therein various types of food which it may be desired to keep separate from each other.

It is desirable in separating various types of food in a container to provide a barrier between the different types of food to reduce the possibility of contamination of one type of food by another and to reduce the amount of possible odour transmittal between the types of food.

According to this invention there is provided a storage container comprising a base having a bottom wall and an upstanding peripheral sidewall integral with said bottom wall, said side wall being provided with first and second inwardly directed protrusions, said storage container further comprising an imperforate divider member adapted to divide said container into separate container portions, said divider member being provided with first and second end portions, each defining a recess adapted to receive said first and second protrusions respectively, in engagement therewith, thereby to locate said divider member in a dividing position within the container.

In order that the invention may be more readily understood and so that further features thereof may be appreciated the invention will now be described by way of example with reference to the accompanying drawings in which;

FIGURE 1 is a perspective view of a storage container in accordance with the pre-

sent invention;

FIGURE 2 is an exploded perspective view of the storage container shown in Figure 1, the container being provided with a subsidiary container;

FIGURE 3 is a sectional view along the line 3-3 of Figure 1; a subsidiary container being shown in position within the storage container;

FIGURE 4 is a plan view with parts cut away of the container shown in Figures 1, 2 and 3 of the drawings;

FIGURE 5 is a partial sectional view of the storage container; and

FIGURE 6 is an enlarged partial elevational view showing a divider member positioned within the container.

Throughout the specification, like reference numerals are used to indicate like parts.

Referring to the drawings, a container in accordance with the present invention comprises a base 11, divider member 12 and a cover or lid 13. A subsidiary container 14 may be placed within the container 10 in a manner and through a constructional relationship which will be hereinafter more apparent. The subsidiary container 14 shown is also provided with a seal member 14a so that it may be independently sealed by the seal member 14a, within the container 10.

The container base 11, comprises a generally rectangular bottom wall 15 having a downwardly depending peripheral supporting bead 16. The base 11 further comprises an upstanding peripheral wall comprising opposed sidewalls 17 and relatively shorter opposed endwalls 18. Both the sidewalls 17 and the endwalls 18 are upwardly and slightly outwardly disposed to facilitate the receipt of the divider member 12 and the container lid 13 as will hereinafter be more apparent. The sidewalls 17 and the endwalls 18 terminate in a peripheral rim 19 which is adapted sealingly to engage an inverted U-shaped peripheral rim 19a of the container lid 13. To facilitate such sealing the sidewalls and endwalls 18 may if desired terminate in an outwardly flared peripheral

rim (not shown). The sealing engagement is such that materials and particularly foodstuffs may be placed within the container for substantially air tight storage. The seal 5 14a is similarly adapted for placement upon the subsidiary container 14.

It should be noted that the sidewalls 17 are slightly outwardly bowed as may be seen most clearly in Figure 4, the distance 10 between the sidewalls 17 thus being slightly greater at the centre than at the ends of the base 11.

The divider member 12 comprises an upstanding planar member or plate 20, which 15 is imperforate and has a straight top wall portion or edge 21.

The plate 20 is provided at each end with rectangular flanges 22 each extending in a plane perpendicular to the plate 20. The 20 flanges 22 as can best be seen in Figures 2, 5 and 6 are bounded along their vertical and upper edges by walls 23 that protrude outwardly therefrom. These flanges 22 and walls 23 of the divider member 12 define 25 two recesses adapted to receive two inwardly directed protrusions 24, that are formed as an integral part of the container sidewalls 17, in firm engagement therewith.

The edge 21 of the plate 20 is adapted to 30 abut or lie in close proximity to the underside of the lid 13 when the member 12 is positioned between the sidewalls 17 in the manner shown in Figures 2 and 3 of the drawings. Thus with such a construction the 35 container 10 is substantially divided into two separate compartments in which foodstuffs of differing consistency, for example, may be segregated. The compartments may be of the same or of different sizes.

40 The protrusions 24 are of a width of between about 25% and 60% of the height of the sidewalls 17 and extend between points proximate the bottom wall 15 and the upper extent of the sidewalls 17.

45 The free ends of the walls 23 are adapted to conform to and abut the sidewalls 17 adjacent the respective protrusion 24 with which the end portions are adapted to engage.

50 The walls 23 serve not only to locate the divider member 12 in position relative to the protrusions 24 but also to minimize the passage of any of the product stored in the container on one side or the other of the 55 divider member 12 into the narrow areas between the flanges 22 and protrusions 24. The upper surfaces of horizontally extending portions of the walls 23 lie in the same plane as the edge 21 of the plate 20. Thus 60 the lid 13 will abut or lie in close proximity to both the edge 21 and the horizontally extending portions of the walls 23 thereby to minimize the passage of any product between the divider member 12 and lid 13. 65 Similarly the lower edge of the divider

member abuts or lies in close proximity to the base 15 of the container 10. Thus the transference of any product between the compartments defined by the divider member is minimized. 70

Suitable materials for the divider member 12 would be high density polyethylene polypropylene or similar copolymeric materials. The base 11 and lid 13 are preferably formed of the same materials but 75 may also be of a low or medium density polyethylene which is slightly more flexible than the material from which the divider member is made and also exhibits the characteristic of being slightly locally distortable. 80

Turning now to Figure 4 of the drawings, an additional feature of the invention is shown wherein a smaller subsidiary container 14 may be placed within the container 10 beside the divider member 12. 85 This closed subsidiary container, of course, functions to segregate completely any product contained therein from a product stored on the other side of the divider 90 member.

WHAT WE CLAIM IS:

1. A storage container comprising a base having a bottom wall and an upstanding peripheral sidewall integral with said 95 bottom wall, said side wall being provided with first and second inwardly directed protrusions, said storage container further comprising an imperforate divider member adapted to divide said container into separate container portions, said divider member being provided with first and second 100 end portions, each defining a recess adapted to receive said first and second protrusions respectively, in engagement therewith, thereby to locate said divider member in a dividing position within the container. 105

2. A storage container according to claim 1, wherein said divider member is of generally planar configuration and stands upright relative to the base of the container when in said dividing position. 110

3. A storage container according to claim 1 or claim 2 wherein said end portions each comprise a substantially planar 115 flange having a lower edge, an upper edge and sides and having walls extending from said sides and upper edge, in a direction away from said divider member.

4. A storage container according to claim 3 wherein the free ends of the walls 120 extending from the flanges are adapted to conform to and abut the sidewall of the container base adjacent the respective protrusions with which the end portions are adapted to engage. 125

5. A storage container according to any one of the preceding claims, wherein said protrusions are of a width of between about 25% and 60% of the height of said side- 130

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rim (not shown). The sealing engagement is such that materials and particularly food-stuffs may be placed within the container for substantially air tight storage. The seal 5 14a is similarly adapted for placement upon the subsidiary container 14.

It should be noted that the sidewalls 17 are slightly outwardly bowed as may be seen most clearly in Figure 4, the distance 10 between the sidewalls 17 thus being slightly greater at the centre than at the ends of the base 11.

The divider member 12 comprises an up-standing planar member or plate 20, which 15 is imperforate and has a straight top wall portion or edge 21.

The plate 20 is provided at each end with rectangular flanges 22 each extending in a plane perpendicular to the plate 20. The 20 flanges 22 as can best be seen in Figures 2, 5 and 6 are bounded along their vertical and upper edges by walls 23 that protrude outwardly therefrom. These flanges 22 and walls 23 of the divider member 12 define 25 two recesses adapted to receive two inwardly directed protrusions 24, that are formed as an integral part of the container sidewalls 17, in firm engagement therewith.

The edge 21 of the plate 20 is adapted to 30 abut or lie in close proximity to the underside of the lid 13 when the member 12 is positioned between the sidewalls 17 in the manner shown in Figures 2 and 3 of the drawings. Thus with such a construction the 35 container 10 is substantially divided into two separate compartments in which foodstuffs of differing consistency, for example, may be segregated. The compartments may be of the same or of different sizes.

40 The protrusions 24 are of a width of between about 25% and 60% of the height of the sidewalls 17 and extend between points proximate the bottom wall 15 and the upper extent of the sidewalls 17.

45 The free ends of the walls 23 are adapted to conform to and abut the sidewalls 17 adjacent the respective protrusion 24 with which the end portions are adapted to engage.

50 The walls 23 serve not only to locate the divider member 12 in position relative to the protrusions 24 but also to minimize the passage of any of the product stored in the container on one side or the other of the 55 divider member 12 into the narrow areas between the flanges 22 and protrusions 24. The upper surfaces of horizontally extending portions of the walls 23 lie in the same plane as the edge 21 of the plate 20. Thus 60 the lid 13 will abut or lie in close proximity to both the edge 21 and the horizontally extending portions of the walls 23 thereby to minimize the passage of any product between the divider member 12 and lid 13.

65 Similarly the lower edge of the divider

member abuts or lies in close proximity to the base 15 of the container 10. Thus the transference of any product between the compartments defined by the divider member is minimized.

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Suitable materials for the divider member 12 would be high density polyethylene polypropylene or similar copolymeric materials. The base 11 and lid 13 are preferably formed of the same materials but 75 may also be of a low or medium density polyethylene which is slightly more flexible than the material from which the divider member is made and also exhibits the characteristic of being slightly locally dis- 80 tortable.

Turning now to Figure 4 of the drawings, an additional feature of the invention is shown wherein a smaller subsidiary container 14 may be placed within the container 10 beside the divider member 12. 85 This closed subsidiary container, of course, functions to segregate completely any product contained therein from a product stored on the other side of the divider 90 member.

WHAT WE CLAIM IS:

1. A storage container comprising a base having a bottom wall and an upstanding peripheral sidewall integral with said 95 bottom wall, said side wall being provided with first and second inwardly directed protrusions, said storage container further comprising an imperforate divider member adapted to divide said container into separate container portions, said divider member 100 being provided with first and second end portions, each defining a recess adapted to receive said first and second protrusions respectively, in engagement therewith, 105 thereby to locate said divider member in a dividing position within the container.

2. A storage container according to claim 1, wherein said divider member is of generally planar configuration and stands 110 upright relative to the base of the container when in said dividing position.

3. A storage container according to claim 1 or claim 2 wherein said end portions each comprise a substantially planar 115 flange having a lower edge, an upper edge and sides and having walls extending from said sides and upper edge, in a direction away from said divider member.

4. A storage container according to 120 claim 3 wherein the free ends of the walls extending from the flanges are adapted to conform to and abut the sidewall of the container base adjacent the respective protrusions with which the end portions are 125 adapted to engage.

5. A storage container according to any one of the preceding claims, wherein said protrusions are of a width of between about 25% and 60% of the height of said side- 130



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wall and extend between points proximate said bottom wall and the upper extent of said sidewall.

5 6. A storage container according to any one of the preceding claims, in which said protrusions increase towards the top of the protrusion in the extent to which they protrude inwardly from the sidewalls, thus creating a wedge like appearance when
10 viewed in a direction perpendicular to the plane of the divider.

15 7. A storage container according to claims 1 or 2 wherein the divider is provided with an upright flange at either end thereof, each of said flanges being bounded along its vertical and upper extents by outwardly extending walls that mate with said protrusions and which at the lower extents thereof tapered towards said flange in a
20 shape compatible with the interconnection between said side and bottom wall construction.

8. A storage container according to any one of the preceding claims wherein one
25 said container portion contains a subsidiary container.

9. A storage container according to any one of the preceding claims, further comprising a lid adapted to form a tight seal

with said base.

30 10. A storage container according to claim 9, wherein the wall of the base terminates in an outwardly flared peripheral rim and said lid terminates in a downwardly opening U-shaped peripheral rim adapted
35 to engage the rim of said container in tight sealing relationship.

11. A storage container according to claims 9 or 10 wherein the divider member divides the container into two compartments
40 which are substantially sealed from each other.

12. A storage container substantially as herein described with reference to and as
45 shown in the accompanying drawings.

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